DECISION EDUCATION FOUNDATION

Better Decisions ~ Better Lives

Decision Demonstration

Let’s jump in...

- Someone will have the chance to earn some real money by investing in a small business venture.
- He/she will have a decision to make.

Here’s the venture

- I will flip a coin.
  - It will land on either Heads or Tails.
- You, the investor, will call the position.
- If you are correct, you win $20.
- If you are not correct, you get nothing.

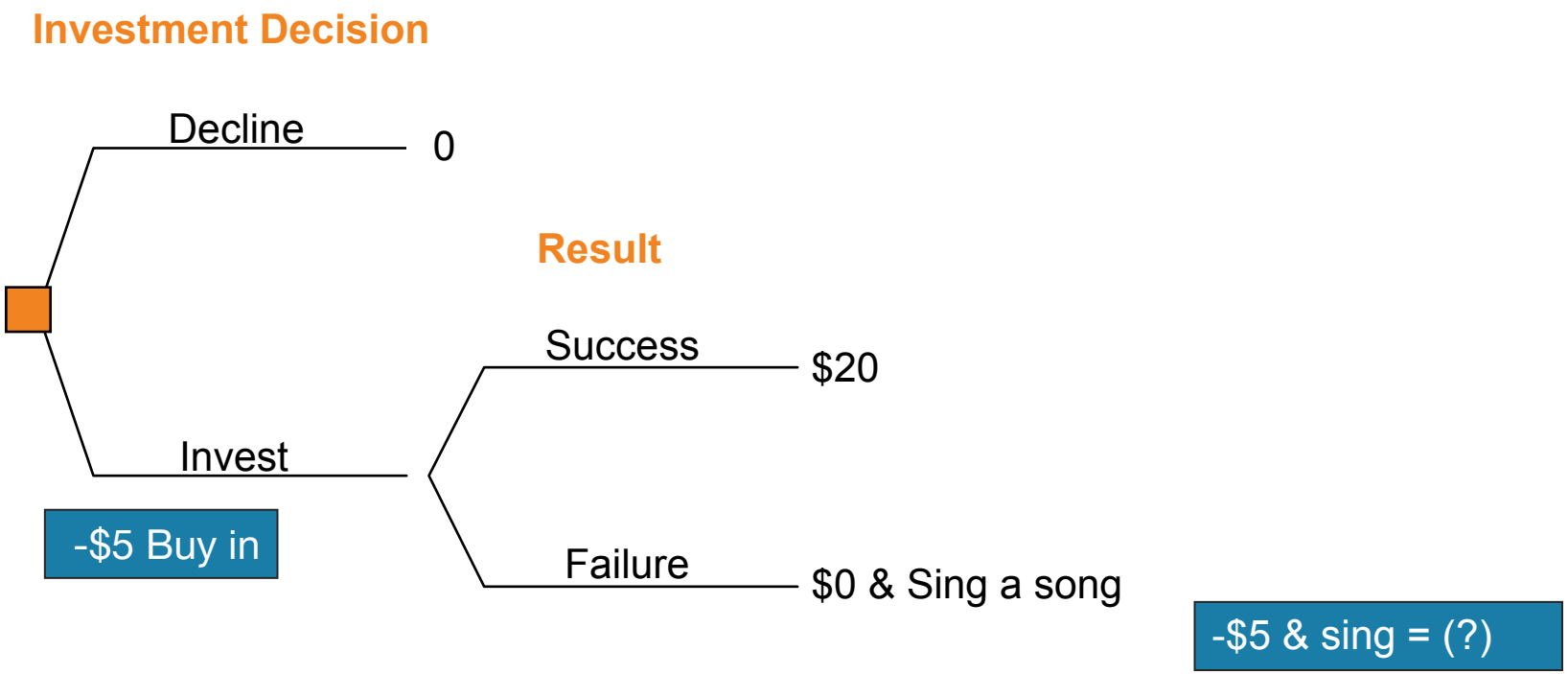
The decision

- Who would be willing to take on this venture?

- At this point, it's an easy choice. Now, let's make it a bit more interesting.
  - It will cost you $5 to play
  - If you lose, you have to sing a song to the group

- Let's sort this out using a decision tree.

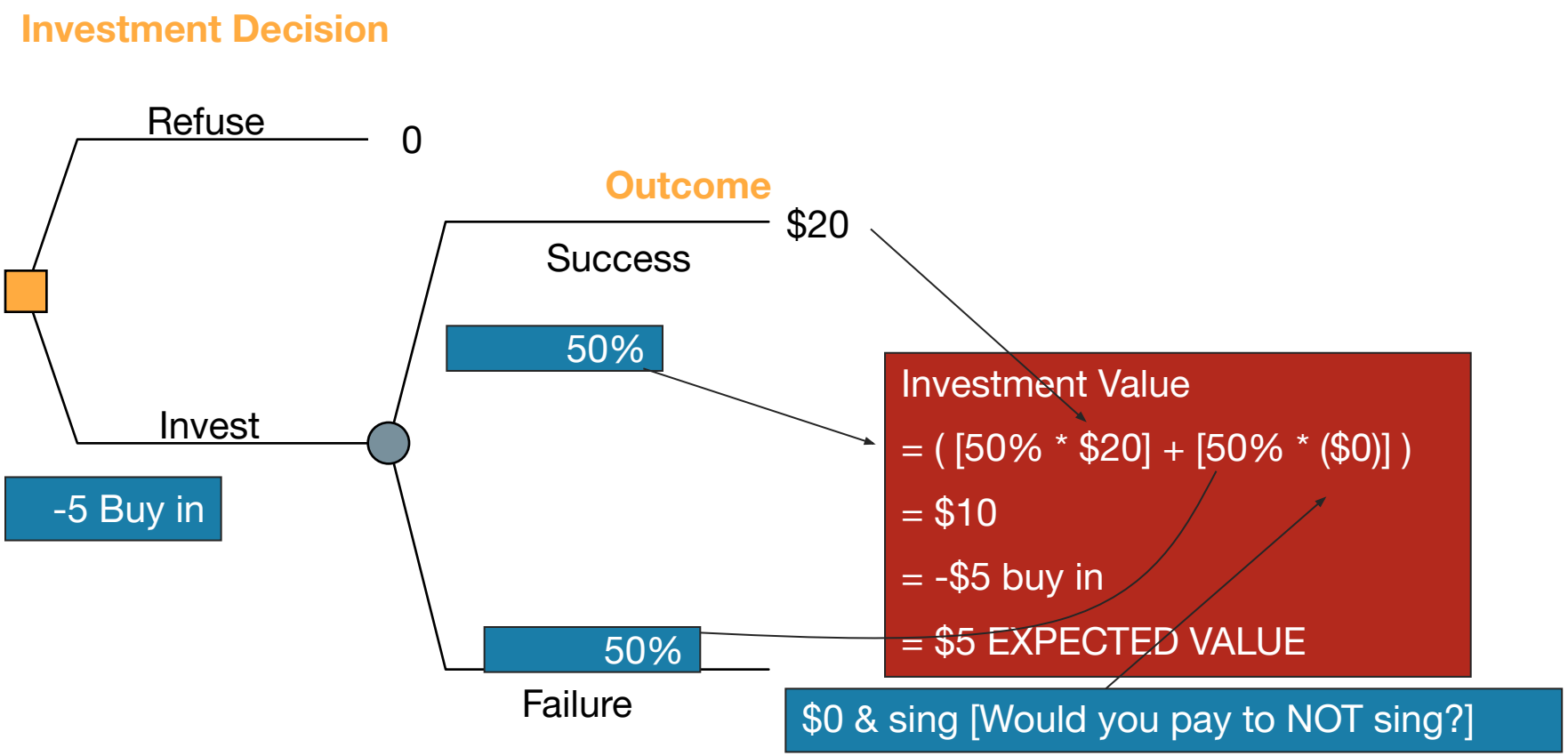
Describe the situation with a Decision Tree



- What are the possible outcomes in this situation?
- How do you feel about the prospect of singing a song in front of the group?

What are the chances that your investment will succeed?

Tie everything together with a little math...



Now comes the moment of decision…

- Who would be willing to invest $5 in this venture?

- The Rules:
  - — You really have to give up the $5
  - — We will play this game only once, with one person
- OK, here we go.

Key ideas in making decisions

- Decisions can be clearly described and analyzed.
  - Decision trees are a useful tool for doing this.
- Probability is a language for describing uncertainty.
- We can use personal preferences to “value” outcomes.
- “Expected Value” represents all results and uncertainties in a single number(Probability weighted average)
- “Certain Equivalent” incorporates personal preferences, including risk, to valuing outcomes.
- Information has value if, it would change your decision.
- Good decisions and good outcomes are not the same thing.